

Comparisons of Job Characteristics

Focus Occupation: **Engineers, All Other (17-2199)**

Associated Occupation: **Petroleum Engineers (17-2171)**

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Petroleum Engineers (17-2171)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	22.0	20.1	0	Current knowledge level may be sufficient
Mathematics	9.2	17.4	17.1	0	Current knowledge level may be sufficient
Physics	4.3	15.3	14.8	0	Current knowledge level may be sufficient
Computers and Electronics	8.4	14.2	15.0	0	Current knowledge level may be sufficient
Administration and Management	8.4	12.9	10.6	<	Expanded education and/or training may be required
Chemistry	4.8	11.6	8.8	<<	Extensive education and/or training may be required
Economics and Accounting	4.4	11.2	6.5	<<	Extensive education and/or training may be required
Design	5.2	9.7	16.5	>>	Current knowledge level is likely more than sufficient
Geography	3.9	9.4	3.2	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Petroleum Engineers (17-2171)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Reading Comprehension	10.7	15.5	15.1	0	Current skill level may be sufficient
Complex Problem Solving	9.1	13.5	12.7	0	Current skill level may be sufficient
Writing	9.2	13.5	12.7	0	Current skill level may be sufficient
Monitoring	9.9	12.8	11.8	0	Current skill level may be sufficient

Coordination	9.1	12.0	10.5	<	A higher skill level may be required
Time Management	8.9	11.8	10.4	<	A higher skill level may be required
Systems Evaluation	6.4	11.6	11.1	0	Current skill level may be sufficient
Systems Analysis	6.5	11.5	11.7	0	Current skill level may be sufficient
Management of Personnel Resources	6.9	10.7	8.9	<	A higher skill level may be required
Science	4.5	10.5	11.4	0	Current skill level may be sufficient
Mathematics	6.2	10.1	12.8	>	Skill level is likely sufficient
Negotiation	6.8	9.7	7.3	<<	Extensive development of skills in this area may be required
Management of Material Resources	3.7	7.3	5.9	<	A higher skill level may be required
Management of Financial Resources	3.3	7.1	5.8	<	A higher skill level may be required
Technology Design	2.6	5.4	7.9	>>	Skill level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 97

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Petroleum Engineers (17-2171)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	15.7	15.1	0	Current ability level may be sufficient
Written Expression	9.8	14.8	13.2	<	Some improvement in abilities may be required
Inductive Reasoning	10.2	14.2	13.7	0	Current ability level may be sufficient
Problem Sensitivity	11.1	13.9	14.0	0	Current ability level may be sufficient
Information Ordering	9.9	12.9	13.2	0	Current ability level may be sufficient
Category Flexibility	9.0	12.6	12.3	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	11.7	13.4	>	Current ability level is likely sufficient
Fluency of Ideas	7.6	11.1	11.4	0	Current ability level may be sufficient
Time Sharing	6.6	8.5	7.0	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Petroleum Engineers (17-2171)

Tools and Technologies	Exclusivity
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Business function specific software	1
Computer data input devices	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Finance accounting and enterprise resource planning ERP software	2
Industry specific software	1
Information exchange software	1
Network applications software	1

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.